Shifting markets and institutional change: wine trade on the river Rhine, c. 1380-1560.¹

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All throughout the Middle Ages and the Early Modern period the river Rhine was the main waterway serving both regional and interregional trade in the northwestern parts of the German Empire. The different branches of the Dutch stretch of the river – IJssel, Lower Rhine/Lek and Waal – allowed various regions and towns of the Northern Netherlands to keep direct commercial relations with German territories and towns further upstream. Along the IJssel the Hanseatic towns of Zutphen, Deventer and Kampen thrived in the fourteenth and fifteenth century, while merchants and skippers could reach the urban centers of Arnhem and Utrecht via the Lower Rhine. The busiest waterway however was the river Waal, which was the major route connecting the staple towns of Cologne and Dordrecht.²

The range of goods within the river trade was limited and hardly changed over time. Downstream transport mainly consisted of Rhine wine, wood, charcoal, steel and iron, earthenware, wheat and various types of stone, while salt, cheese and different sorts of fish were shipped upstream. Within this flow of goods, Rhine wine³ clearly was dominant, both in terms of value as in sheer size. In fact, data from Lobith and Nijmegen, both important toll stations along the rivers in the county of Guelders, suggest that all through the period under consideration in this paper, Rhine wine made up at least 25% and usually more of the total amount of registered shipments on the Rhine.⁴ This paper will therefore focus on the Rhine wine trade on the rivers Rhine and Waal from the late fourteenth until the middle of the

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³ ‘Rhine wine’ (rijnse wijn, or rijnwijn) was a common denominator for (mostly white) wines that were produced along the Rhine and Mosel and in the wider Alsace area as well. In the producing areas people distinguished these wines by type, quality and region of produce. Only the best quality wines were meant for export. The sources from North-West-Europe do no make any finer distinction: all white wine from the wider Rhine-Mosel area was labeled Rhine wine.
sixteenth century. Given the dominance of this particular commodity, its results may reflect developments in river trade in general.\(^5\)

In order to highlight changes I will compare the trade of the final quarter of the fourteenth century, the so-called Golden Age of Cologne Rhine wine trade\(^6\), to those of the mid-sixteenth century. For both periods I will try to quantify the export of wine from the Rhineland to the Netherlands and establish the factors that might explain both short term and middle-long term developments in that export.

**River trade and Rhine wine trade around 1400**

During the late Middle Ages river trade in the Low Countries was to a large extent dominated by two institutions: the staple markets of Cologne and Dordrecht. Both towns had obtained a set of staple privileges during the thirteenth century that made them compulsory ports of call for anyone transporting goods on the river Rhine (Cologne) or Waal, Lek\(^7\) and Meuse (Dordrecht).\(^8\) The wine trade was directly affected by these regulations. The Cologne staple rights stipulated that all wine (and other merchandise) that was transported northbound over the river Rhine should be put up for sale on the Cologne market. Moreover, foreign merchants coming from the north were prohibited to sail past Cologne to purchase wine directly from their producers. Basically, on the grounds of its staple rights, the town and its merchants had a very tight grip on Rhine wine trade in the later Middle Ages, a grip that came close to a monopoly, allowing only some merchants from the Lower Rhine area some piece of the trade. The staple privileges of Dordrecht, to which the so-called *Maasrecht* had been added in 1338, served the same purpose: all goods coming down the rivers had to be offered for sale on the Dordrecht market for certain amount of days, before it could be re-exported; Rhine wine had to stay in Dordrecht for eight days.

Both the Cologne and Dordrecht staple privileges were a source for discontent among merchants from other towns engaged in the river trade all through the thirteenth to sixteenth centuries\(^9\) and as a rule there were always merchants trying to evade them. Yet most of the complaints were not about the staple privileges as such, but about the enforcement of its specific contents – whether merchants of a certain town should be exempt for instance, or

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\(^{5}\) See Van Uytven, ‘Die Bedeutung’, 244-245.  
\(^{7}\) The rivers Waal and Lek are both branches of the Rhine.  
\(^{9}\) See for a mid-fifteenth century conflict over the Dordrecht staple Seifert, ‘Der Streit’. 
whether tax and toll rates on the staple market were not intolerably high. The fundamental existence of the staple markets was hardly contested before the end of the fifteenth century, since they obviously fulfilled a useful function. At Cologne and Dordrecht merchants could be sure to find a secure, well-regulated, year-round market that ensured the sale of their goods.

An additional institution that furthered strengthened Cologne’s central position was the quality inspection of the wine and the exact measurement of the wine barrels on the Cologne market. Once wine was put up for sale, it would be subject to an inspection by Röder, officials that were appointed specifically for that task by the town council. When they approved of both the quality of the wine and the size of the barrels that were used for transport, they would mark the wine barrel with a carving, thus indicating its contents were up to Cologne standards. This mark was recognized all over Northern and Western Europe as a reliable quality mark. Similar inspections were carried out at Dordrecht, before the wine was re-exported.

At Cologne, after the inspection and the payment of an import tax, merchants were allowed to sell their wine. A fair share would remain in Cologne, which was a considerable market with an estimated 35,000 to 40,000 inhabitants during the later Middle Ages. A considerable amount however was exported to the north and west – Rhine wine export was perhaps Cologne’s most important export commodity. The most important export markets were, in order of importance, the Netherlands (particularly Flanders, Brabant and Holland), England and the Baltic. Quantification of the size and scale of this export is difficult, due to a lack of quantifiable data. Nevertheless, for the late fourteenth and early fifteenth centuries, some calculations and rough estimations are available.

The densely populated and capital rich county of Flanders appears to have been the largest market for Rhine wine around the year 1400. Militzer and Rößner estimated, on the basis of figures from the years 1379-1380, that about ten percent of the total amount of wine that was imported into Cologne was sent to and consumed in the town of Bruges. The Netherlands as a whole may have accounted for roughly thirty percent of that export. Trading relations with Flanders, and in particular Bruges, were particularly intensive. Hanseatic merchants, including those from Cologne and the Lower Rhine area, were fully immersed in the commercial life of Bruges through networks that consisted of innkeepers, moneylenders and

10 Militzer, ‘Handel und Vertrieb’, 166 and 175.
fellow merchants. These networks served to secure the Hanseatic position on the Flanders market, in addition to the sets of trading privileges the German merchants had been granted by the counts of Flanders. Among these was the right to sell Rhine wine freely, both in bulk and in retail. This meant that in Bruges they did not only sell wine in large barrels to merchants, innkeepers and other consumers who bought in bulk, but also sold it by the glass. To this purpose the Hanseatic merchants (most of them from Cologne, or from the Lower Rhine area) rented cellars in town, which they used as wine selling points.

England was also quite a sizeable export market during the late fourteenth and early fifteenth century as well. In some years the export to England accounted for about 20% of the total of Cologne wine exports. The English market would rapidly dwindle during the fifteenth century and sixteenth century, but Rhine wine never fully disappeared there. How much Rhine wine was shipped to the Baltic is not known, though the close relations that existed between some Cologne wine merchants and fellow merchants in the larger towns of the Baltic, Lübeck being the most important, suggest that this trade must have been rather substantial.

Rhine wine export to the Netherlands

The main urban markets of Flanders, Brabant and Holland could be reached via two routes from Cologne. On the one hand, merchants could decide to transport their wine overland, directly to Brabant and Flanders. This land transport appears to have been expensive, yet there are indications that wine was actually transported overland to Brabantine towns such as Brussels, Leuven and Antwerp. Due to a lack of sources, however, we have hardly any idea about the quantities of wine that reached their markets in this manner. A glimpse of the overland wine trade can be caught from evidence from the years 1488 and 1490-1495. Officials recorded 75 shipments of Rhine wine from Cologne to Antwerp during those years. It was more customary and probably cheaper to send large shipments of wine on ships down the Rhine and Waal, through the duchy of Guelders to the town of Dordrecht, one of the major towns of Holland. Around 1550 several hundreds of shipments of wine were sent to the

13 Militzer and Rößner, ‘Rheinischer Wein’
14 Schnurmann, Kommerz und Klüngel, 121-122; According to Lloyd, German Hansa, the downfall of Rhine wine in England started already at the end of the thirteenth century, as French wines came to dominate the English market.
15 Hirschfelder, Kölner Handelsbeziehungen, 178-184.
16 Harreld, High Germans, 31.
Low Countries via this route.\textsuperscript{17} As mentioned above, Dordrecht was a privileged staple market for Rhine wine, comparable to Cologne, albeit on a smaller scale. From Dordrecht onwards wine would be shipped to Holland, Brabant and Flanders, and to England as well.\textsuperscript{18}

For the wine trade to Dordrecht some figures are available. The calculations presented by Niermeijer show that between 1379 and 1384 the town of Dordrecht imported at least 2.7 million litres (or 3000\textit{voeder}) of Rhine wine each year.\textsuperscript{19} Data from the Rhine toll station of Lobith (graph 1) suggest that about a decade later the annual volume of the wine trade was about the same size, fluctuating between 1,7 million litres in 1394-1395 to over 3,5 million litres in 1397-1398.

\textbf{Graph 1: Rhine Wine transport, measured at the toll of Lobith, 1388-1409}

\begin{center}
\includegraphics[width=\textwidth]{graph1.png}
\end{center}

Source: Gelders Archief, inv. nr. 216-231 and Alberts, ‘De tolrekeningen van Lobith’. There are no accounts available for the years 1391-1393.

Several factors contributed to the yearly fluctuations. Meteorological conditions were of course fundamental for all agricultural production, including that of wine.\textsuperscript{20} The failure or success of grape harvests, and with them the quality of wine, obviously depended on weather

\textsuperscript{17} Figures from my forthcoming dissertation.
\textsuperscript{18} Niermeijer, ‘Dordrecht’, 25.
\textsuperscript{19} Niermeijer, ‘Dordrecht’, 24. Niermeijer takes a\textit{voeder} to be roughly 1000 litres, but that is exaggerated.
\textsuperscript{20} Unger, ‘Consumption patterns’, 269-270.
conditions. Moreover, fair weather increased the speed of transport to the most important markets. Severe winters posed a serious problem for transport, especially when rivers froze over.\textsuperscript{21}

Secondly, political conflicts and trade boycotts were also obstacles for river trade time and again. From 1391 onwards tensions between the duke of Guelders and the duke of Cleves put a strain the river trade of their subjects, though their activities did not come to a complete standstill.\textsuperscript{22} During the period 1391-1396 an internal power struggle in Cologne also had a serious impact on the wine trade. The struggle revolved around a new class of young and upcoming merchants who challenged the closed magistrate that had been in power for centuries. Among the new merchants the number of wine merchants was relatively high. During the power struggle they could not conduct their business as usual. This is partly reflected in the total volume of wine trade towards the Netherlands. As Cologne merchants were not able to fully participate in commercial life, others seized this opportunity to fill the void and carve out a position of their own in river trade. The best example probably are merchants from Nijmegen, who had been expanding their activities already before 1391, and could now sustain that position.\textsuperscript{23}

A third major factor affecting wine imports was the development of consumers’ demands. Shifting consumption patterns, rising prices and falling purchasing power could diminish the role of any product on the market, but a relatively luxurious product such as Rhine wine was probably more vulnerable to this kind of change. On the short term consumers’ demands are not expected to alter rapidly, except in periods of acute demographic crisis. However, there are no indications that around 1400 changing market demand had a big impact on the Rhine wine trade.

\textit{Changing markets in the fifteenth and sixteenth century}

During the fifteenth and sixteenth century the Rhine wine market in North-Western-Europe was subject to some structural changes. In the first place, the hierarchy of markets had altered. Bruges was no longer the most important market in Western Europe, although Hanseatic merchants, especially those from the Baltic, seem to have clung to the Flemish town for a long time. Though Bruges remained an important trading center all through the sixteenth century, as the major gateway of the Low Countries it was replaced by Antwerp. Merchants

\begin{itemize}
\item \textsuperscript{21} Weststrate, ‘Laat-veertiende-eeuwse Gelderse riviertolrekeningen’, 246; Buisman, \textit{Weer en wind}, passim.
\item \textsuperscript{22} Niermeijer, ‘Handelsverkeer’, 32-33
\item \textsuperscript{23} Weststrate, ‘Laat-veertiende-eeuwse Gelderse riviertolrekeningen’, 249.
\end{itemize}
and skippers from Cologne and the smaller towns in the Lower Rhine area had been involved already had relatively strong commercial ties to Antwerp in the fourteenth century. They were relatively quick to respond to the new situation. Cologne merchants were and remained a sizeable trading community in Antwerp, despite growing competition from South German merchants after 1500.²⁴

More important for the wine market was that consumption patterns seem to have changed in the course of the fifteenth century. The consumption of hopped beer rose steadily from the late fourteenth century onwards, partly to the expense of Rhine wine. By the middle of the sixteenth century beer had become the most popular drink, even in wine producing regions along the Rhine and Mosel.²⁵ As a result wine prices rose gradually in the Low Countries during the fifteenth and sixteenth centuries. Van Uytven has shown this upward price trend for the towns of Brabant.²⁶ Wine prices at Leiden and particularly Utrecht show a similar tendency for the Northern Netherlands (graph 2).

Graph 2. Index prices of Rhine wine in Utrecht and Leiden, 1390-1570

Source: Posthumus, *Nederlandse prijsgeschiedenis*.

Data from the Cologne market seem to confirm these symptoms of crisis. During the period under investigation in this paper the total amount of wine traded at the Cologne market dropped from an annual average of 13.830 voeder in 1379-1384 to 12.000 voeder in the mid-fifteenth century. It then dropped even further to a mere 7.000 voeder a year between 1500-1515, which appears to have been the normal annual average during the sixteenth century. Rising prices and falling trade at the Cologne market caused Van Uytven to characterize the fifteenth and sixteenth century as a period that saw “the breakdown of Rhine wine trade”. However, this conclusion seems to be somewhat overstated.

To judge the developments in the wine trade on the Rhine in the sixteenth century, it may be wise not to take the Cologne market as the only point of reference. While the market in the town of Cologne itself crumbled, data from the toll of Nijmegen (in the duchy of Guelders) suggest that wine trade on the rivers Rhine and Waal to Dordrecht was kept up, at least in absolute numbers (graph 3). Average annual volumes during the years 1545-1557 were comparable to those of the late fourteenth century. If anything, sixteenth century trade peaks were considerably higher than 150 years before.

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28 A first critique on Van Uytven’s these is to be found in Irsigler, ‘Kölner Handelsbeziehungen’, who concentrated on efforts of Cologne merchants to secure the supply of wine in the face of a diminishing market. This paper seeks to add to this argumentation by looking at the quantitative development of Rhine wine trade downstream from Cologne.
Moreover, the market share of Rhine wine on the Antwerp wine market was actually quite large these years. In 1543 54% of all imported wine was Rhenish, while French wines made up only 24% and Mediterranean wines accounted for 22%. At the Great Watertoll, where all the wine that entered Antwerp was taxed, Rhine wine coming from Dordrecht accounted for 50% of the total wine import in 1551-1552 and nearly 65% in 1554-1555.  

**Market structure and institutional change**

How is this discrepancy between the rapidly dwindling trade in Cologne and the relatively stable position of Rhine wine in the river trade and on the Antwerp market to be explained? *Per capita* consumption of Rhine wine might indeed have fallen in the course of the fifteenth and sixteenth century, but this did not necessarily spell disaster for wine merchants. Their trade was not swept away, but rather took on a somewhat different character. Rising beer consumption made Rhine wine still more of a luxury item; it became a product that found its own niche on the upper class markets of Western and Northern Europe. As a luxurious

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commodity, wine did not have to compete with beer for consumers. The market for beverages was increasingly more diversified and outside wine producing areas wine and beer were probably not seen as substitute products.

The fall of wine imports into Cologne can be partly explained by the fact that Cologne was not able to enforce its staple rights as strictly as it was in the fourteenth century. From the second half of the fifteenth century the slowly diminishing demand for Rhine wine forced Cologne wine merchants to cut transaction costs and purchase their wine directly from the producers, instead of relying on the Cologne staple market.\textsuperscript{30} They invested heavily in vineyards, negotiated terms to secure future supply of wine and sometimes even bought up the produce of whole wine villages. By doing this Cologne merchants undermined to a certain extent the staple market, since bringing wine to the staple and then re-exporting it would only heighten their transaction costs.

The position of the Cologne staple market was further weakened as a result of direct trade of South German merchants with Antwerp. They preferred the land routes, using large trains of \textit{Hessewagen}, and passed by the Cologne market altogether. Furthermore, data from Nijmegen suggest that in river trade merchants from Mainz and Strasbourg were now able to send their wine directly over the rivers Rhine and Waal to their destinations in the Netherlands. In centuries before Cologne undoubtedly would have been their final destination. But not only South Germans managed to get round the Cologne staple, but also merchants and skippers from the Lower Rhine area, most notably those from the town of Wesel. They consolidated their virtually monopolist position as timber traders, but gained a stronger foothold in other segments of river trade as well, including the wine trade.

So as a consequence of shifts in the market hierarchy of the Low Countries, changing consumption patterns and South German competition, the Cologne staple dwindled. This did not only have an effect on Rhine wine trade; the same tendency has been observed in the steel trade from the 1560’s onwards.\textsuperscript{31} As a consequence, in the sixteenth century more and more merchants seem to have bypassed the Cologne staple. In Holland, the Dordrecht staple did not function as well as it had done before either. While it still was a major distribution center for river trade, several Dutch towns successfully claimed exemption of the compulsory staple regulations and over time obligations to put wares for sale at Dordrecht could be bought of.

Another equally important consequence was that these market and institutional changes sparked off a process of concentration and specialization within the Rhine wine trade.

\textsuperscript{31} Schnurrmann, ‘‘Ghen Engellandt’’. 
While levels of wine transport over the rivers to the Low Countries were consolidated in absolute terms, the number of merchants involved grew smaller. Less merchants freighted larger shipments and the bigger merchants no longer handled transport themselves as they had done in centuries before. They worked with factors at the main markets of Western Europe, especially at Antwerp. Transport more and more became the business of a specialized shipping sector. A fair number of citizens of Nijmegen for instance, who were active wine traders themselves around 1400, appear in the mid-sixteenth century sources as skippers, working for merchants from Cologne, Antwerp, Strasbourg, ‘s-Hertogenbosch and Mainz.32

Conclusion
Rhine wine trade did not fully break down by the sixteenth century. It was the century-old institution of the Cologne staple market that failed to live up to the new standards. The demands of the western markets, Antwerp in particular, shaped new patterns in the Rhine wine trade. New groups of merchants, from Antwerp to Strasbourg, gradually entered the Rhine trade and following this, a certain amount of functional specialization between the commercial and transport sector made itself felt. The new patterns would characterize the river trade until the beginning of the Dutch Revolt. After the outbreak of hostilities in the Netherlands in the 1560’s and 1570’s the markets of the Netherlands could hardly be reached anymore. Rhine wine trade suffered heavily, since it caused an unprecedented rise in prices: by 1600 prices for Rhine wine were 5 to 7 times higher as they had been a little over a century before. In the seventeenth century it had definitively become a luxury item that no longer dominated river trade to the Low Countries.

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